

OVERLAPPING COVERAGE SECTORED/OMNI ANTENNA ARCHITECTURE FOR
DUAL STANDARD SUPPORT WITH HANDOFF TO BACKWARD-COMPATIBLE
STANDARD DURING ANTENNA/RF PATH/SYSTEM FAILURE

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ABSTRACT OF THE DISCLOSURE

Two radio systems are provided for each coverage area within a wireless communications system, each radio system supporting a different wireless communications standard with at least one of the standards being compatible with the other (such as the backward-compatibility of either of 1xEV-DO or 1xEV-DV with IS-2000). Both of the radio systems may have a sectored configuration for selected coverage areas while a combination of sectored and omni configurations are employed for the radio systems for other coverage areas. When communications with a mobile station utilizing one standard fails within a coverage area due to antenna, radio frequency path, or radio system failure, wireless communications with that mobile station is automatically resumed utilizing the other, compatible wireless communications standard.